

Multilayer Chip Balun – SLBL Series

Operating Temp. : -40°C~+85°C



FEATURES

- Small size, enable high density mounting
- Low insertion loss, excellent amplitude and phase balance
- Surface mount type, high reliability

APPLICATIONS

- Mobile communication equipment for LTE, 5G systems, etc.
- Bluetooth, Wi-Fi, WLAN etc.


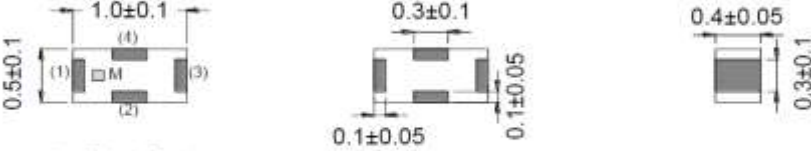

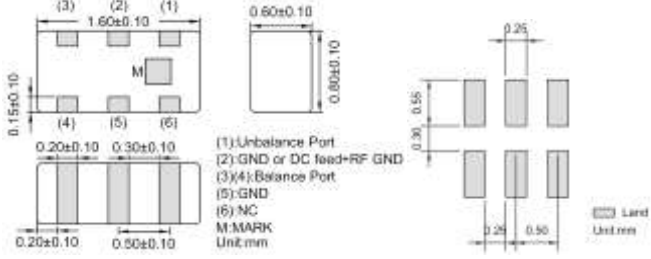

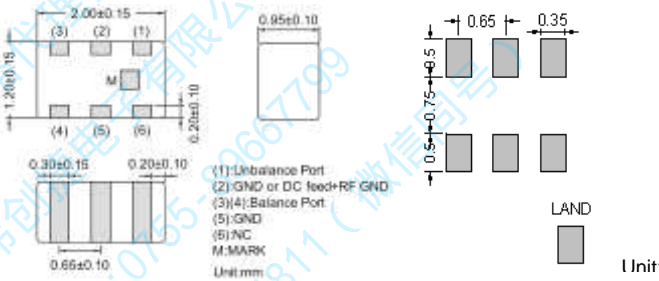
PRODUCT IDENTIFICATION

| SLBL | 18 | -2R450G | -05 | -31 | T | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|-------------------|-----|------|-------|--|------|--|--|-------------|---------|------------|---------|--|---------|-----------|---------|--|----------------------|--|------------------|--|---------|---------------|--------|-----------|--------|-----------|
| ① | ② | ③ | ④ | ⑤ | ⑥ | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><th colspan="2">Type</th></tr> <tr><td>SLBL</td><td>Balun</td></tr> </table> | | Type | | SLBL | Balun | <table border="1"> <tr><th colspan="2">External Dimensions (LxW) (mm)</th></tr> <tr><td>06 [0202]</td><td>0.6x0.5</td></tr> <tr><td>15 [0402]</td><td>1.0x0.5</td></tr> <tr><td>18 [0603]</td><td>1.6x0.8</td></tr> <tr><td>21 [0805]</td><td>2.0x1.2</td></tr> </table> | | External Dimensions (LxW) (mm) | | 06 [0202] | 0.6x0.5 | 15 [0402] | 1.0x0.5 | 18 [0603] | 1.6x0.8 | 21 [0805] | 2.0x1.2 | <table border="1"> <tr><th colspan="2">Center Frequency</th></tr> <tr><th>Example</th><th>Nominal Value</th></tr> <tr><td>2R450G</td><td>2450.0MHz</td></tr> <tr><td>5R400G</td><td>5400.0MHz</td></tr> </table> | | | Center Frequency | | Example | Nominal Value | 2R450G | 2450.0MHz | 5R400G | 5400.0MHz |
| Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SLBL | Balun | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| External Dimensions (LxW) (mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 [0202] | 0.6x0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 [0402] | 1.0x0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 [0603] | 1.6x0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 [0805] | 2.0x1.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Center Frequency | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Example | Nominal Value | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2R450G | 2450.0MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5R400G | 5400.0MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><th colspan="2">Balance Impedance</th></tr> <tr><td>05</td><td>50Ω</td></tr> <tr><td>10</td><td>100Ω</td></tr> </table> | | Balance Impedance | | 05 | 50Ω | 10 | 100Ω | <table border="1"> <tr><th colspan="2">Series Code</th></tr> <tr><td colspan="2">01,31 etc.</td></tr> </table> | | Series Code | | 01,31 etc. | | <table border="1"> <tr><th colspan="2">Packing</th></tr> <tr><td>T</td><td>Tape Carrier Package</td></tr> </table> | | Packing | | T | Tape Carrier Package | | | | | | | | | |
| Balance Impedance | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 | 50Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 100Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Series Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01,31 etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Packing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | Tape Carrier Package | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SHAPE AND DIMENSIONS

| Type: SLBL06 Series | Dimensions and Land Patterns |
|----------------------|------------------------------|
| | |
| SLBL06-1R900G-10-03T | Dimensions and Land Patterns |
| | |

SHAPE AND DIMENSIONS

| Type: SLBL15 Series | Dimensions and Land Patterns |
|--|--|
|  | <p><Top View> <Bottom View> <Side View></p>  <p>(1) : Balanced Port (2) : Unbalanced Port (3) : Balanced Port (4) : GND M : MARK Unit : mm</p> |
| Type: SLBL18 Series | Dimensions and Land Patterns |
|  |  <p>(1) Unbalance Port (2) GND or DC feed+RF GND (3)/(4) Balance Port (5) GND (6) NC M: MARK Unit: mm</p> |
| Type: SLBL21 Series | Dimensions and Land Patterns |
|  |  <p>(1) Unbalance Port (2) GND or DC feed+RF GND (3)/(4) Balance Port (5) GND (6) NC M: MARK Unit: mm</p> |

SPECIFICATIONS

SLBL06 TYPE

| Part Number | Unbalance Port Impedance | Balance Port Impedance | Frequency Range | Insertion Loss | Balance Port VSWR | Amplitude Difference | Phase Difference | Power Capacity |
|----------------------|--------------------------|------------------------|-----------------|-------------------|-------------------|----------------------|------------------|----------------|
| Units | Ω | Ω | MHz | dB | - | dB | Deg. | mW |
| SLBL06-0R770G-10-01T | 50 | 100 | 698~960 | 0.6 Max. at 25°C | 2.0 Max. | 3.0 Max. | 180±10 | 500 |
| SLBL06-1R900G-10-03T | 50 | 100 | 1710~2200 | 0.6 Max. at 25°C | 2.0 Max. | 3.0 Max. | 180±15 | 500 |
| SLBL06-2R500G-10-01T | 50 | 100 | 2300~2700 | 0.55 Max. at 25°C | 2.0 Max. | 2.5 Max. | 180±10 | 500 |

SLBL15 TYPE

| Part Number | Unbalance Port Impedance | Balance Port Impedance | Frequency Range | Insertion Loss | Balance Port VSWR | Amplitude Difference | Phase Difference | Power Capacity |
|----------------------|--------------------------|------------------------|-----------------|----------------------|-------------------|----------------------|------------------|----------------|
| Units | Ω | Ω | MHz | dB | - | dB | Deg. | mW |
| SLBL15-0R770G-10-31T | 50 | 100 | 758~821 | 0.6 Max. at 25 °C | 1.5 Max. | 2.0 Max. | 180±10 | 500 |
| SLBL15-1R900G-10-31T | 50 | 100 | 1805~2025 | 0.6 dB Max. at 25 °C | 1.5 Max. | 2.5 Max. | 180±10 | 500 |

SPECIFICATIONS

SLBL18 TYPE

| Part Number | Unbalance Port Impedance | Balance Port Impedance | Frequency Range | Insertion Loss | Balance Port VSWR | Amplitude Difference | Phase Difference | Power Capacity |
|----------------------|--------------------------|------------------------|-----------------|--|-------------------|----------------------|------------------|----------------|
| Units | Ω | Ω | MHz | dB | - | dB | Deg. | mW |
| SLBL18-1R500G-05-31T | 50 | 50 | 699~960 | 1.4dB Max. at 25°C | 2.0 Max. | ± 1.2 dB | 180 \pm 10 | 3.0 W Max. |
| | | | 1710~1995 | 1.3dB Max. at 25°C | | | | |
| | | | 2000~2700 | 1.5dB Max. at 25°C | | | | |
| SLBL18-1R500G-10-32T | 50 | 100 | 673~2700 | 1.7dB Max. at 25°C | 2.45 Max. | ± 1.5 dB | 180 \pm 15 | 3.0 W Max. |
| SLBL18-2R450G-05-02T | 50 | 50 | 2450 \pm 50 | 0.9 Max. at 25°C 1.0 Max. at -40 to +85°C | 2.0 Max. | 2.0 Max. | 180 \pm 10 | 500 |
| SLBL18-2R500G-05-31T | 50 | 50 | 2300~2700 | 1.2 dB Max. at 25°C | 2.0 Max. | ± 1.5 dB | 180 \pm 10 | 3.0 W Max. |
| SLBL18-2R500G-10-31T | 50 | 100 | 2300~2700 | 1.2 dB Max. at 25°C | 2.0 Max. | ± 1.5 dB | 180 \pm 10 | 3.0 W Max. |
| SLBL18-3R600G-05-31T | 50 | 50 | 3300~3900 | 1.2 dB Max. at 25°C | 2.0 Max. | ± 1.5 dB | 180 \pm 15 | 2.0 W Max. |
| SLBL18-3R600G-10-31T | 50 | 100 | 3300~3900 | 1.0 dB Max. at 25°C | 2.0 Max. | ± 1.2 dB | 180 \pm 15 | 2.0 W Max. |
| SLBL18-4R500G-05-31T | 50 | 50 | 3200~4000 | 1.1 dB Max. at 25°C | 2.1 Max. | ± 1.2 dB | 180 \pm 12 | 3.0 W Max. |
| | | | 4000~5000 | 1.0 dB Max. at 25°C | 2.0 Max. | | | |
| | | | 5000~6000 | 1.0 dB Max. at 25°C | 2.0 Max. | | | |
| SLBL18-4R500G-10-31T | 50 | 100 | 3200~4000 | 1.1 dB Max. at 25°C | 2.1 Max. | ± 1.2 dB | 180 \pm 12 | 3.0 W Max. |
| | | | 4000~5000 | 1.0 dB Max. at 25°C | 2.0 Max. | | | |
| | | | 5000~6000 | 1.0 dB Max. at 25°C | 2.0 Max. | | | |

SLBL21 TYPE

| Part Number | Unbalance Port Impedance | Balance Port Impedance | Frequency Range | Insertion Loss | Balance Port VSWR | Amplitude Difference | Phase Difference | Power Capacity |
|----------------------|--------------------------|------------------------|-----------------|--------------------------|-------------------|----------------------|------------------|----------------|
| Units | Ω | Ω | MHz | dB | - | dB | Deg. | mW |
| SLBL21-2R400G-05-01T | 50 | 50 | 2400 \pm 100 | 0.8 Max. at 25°C | 2.0 Max. | 2.0 Max. | 180 \pm 10 | 500 |
| | | | | 0.9 Max. at -40 to +85°C | | | | |
| SLBL21-2R400G-10-01T | 50 | 100 | 2400 \pm 100 | 0.9 Max. at 25°C | 2.0 Max. | 2.0 Max. | 180 \pm 10 | 500 |
| | | | | 1.0 Max. at -40 to +85°C | | | | |
| SLBL21-5R400G-10-31T | 50 | 100 | 4900~5900 | 1.0 dB Max. at 25°C | 2.0 Max. | ± 2.0 dB | 180 \pm 10 | 3.0 W Max. |
| SLBL21-5R500G-10-33T | 50 | 100 | 3000~8000 | 1.5 dB Max. at 25°C | 2.3 Max. | ± 2.5 dB | 180 \pm 20 | 3.0 W Max. |